

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-19 (Canceled).

20. (Previously Presented) A process for preparing high density green compacts comprising the following steps:

- (a) providing an iron or iron-based powder wherein less than about 5% of the iron-based powder particles have a size below 45 μm ;
- (b) uniaxially compacting the powder in a die at a compaction pressure of at least about 800 MPa; and
- (c) ejecting the green body from the die.

21. (Previously Presented) The process of claim 20, further comprising mixing said powder with graphite and other additives.

22. (Previously Presented) The process of claim 20, wherein the compaction is performed in a single step.

23. (Currently Amended) The process of claim 26 20, wherein at least about 50% of the iron-based powder consists of particles having a particle size above about 106 μm .

24. (Previously Presented) The process of claim 20, wherein at least about 60% of the iron-based powder consists of particles having a particle size above about 106 μm .

25. (Previously Presented) The process of claim 20, wherein at least about 70% of the iron-based powder consists of particles having a particle size above about 106 μm .

26. (Previously Presented) The process of claim 20, wherein at least 50% of the iron-based powder consists of particles having a particle size above about 212 μm .

27. (Previously Presented) The process of claim 26, wherein at least 60% of the iron-based powder consists of particles having a particle size above about 212 μm .

28. (Previously Presented) The process of claim 26, wherein at least 70% of the iron-based powder consists of particles having a particle size above about 212 μm .

29. (Previously Presented) The process according to claim 26, wherein the maximum particle size is about 2 mm.

30. (Previously Presented) The process of claim 22, wherein the graphite is present in an amount of about 0.1 to 1.0%.

31. (Previously Presented) The process of claim 20, wherein the iron-based powder is combined with a lubricant in an amount between about 0.05 and about 0.6% by weight before compaction.

32. (Previously Presented) The process of claim 20, wherein the compaction is performed in a lubricated die.

33. (Previously Presented) The process of claim 31, wherein the compaction is performed by using a combination of internal and external lubrication.

34. (Previously Presented) The process of claim 20, wherein the additives are selected from the group consisting of alloying elements, machinability enhancing agents, hard phase materials and flow agents.

35. (Previously Presented) The process of claims 20, wherein the compaction is performed at a pressure of at least 900 MPa.

36. (Previously Presented) The process of claims 35, wherein the compaction is performed at a pressure of at least 1000 MPa.

37. (Previously Presented) The process of claims 35, wherein the compaction is performed at a pressure of at least 1100 MPa.

38. (Previously Presented) The process of claim 20, wherein the compaction is performed at ambient temperature.

39. (Previously Presented) The process of claim 20, wherein the compaction is performed at elevated temperature.

40. (Previously Presented) The process of claim 20 further comprising sintering in a single step at a temperature above 1100°C.

41. (Currently Amended) A powder composition comprising:
an iron or iron-based powder wherein less than about 5% of the powder particles have a size below 45 μm ; and
0.1-1.0% by weight of graphite.

42. (Previously Presented) The powder composition of claim 41 further including about 0.05 to 0.6% by weight of a lubricant.

43. (Currently Amended) The powder composition of claim 41, wherein at least 50% of the iron-based powder particles have a particle size above about 106 μm .

44. (Currently Amended) The powder composition of claim 43, wherein at least 60% of the iron-based powder particles have a particle size above about 106 μm .

45. (Currently Amended) The powder composition of claim 43, wherein at least 70% of the iron-based powder particles have a particle size above about 106 μm .

46. (Previously Presented) The composition of claim 43, wherein at least 50% of the iron-based powder particles have a particle size above about 212 μm .

47. (Currently Amended) The composition of claim 41 further including additives selected from the group consisting of the alloying elements Mn, Cu, Ni, Cr, Mo, V, Co, W, Nb, Ti, Al, P, S[[,]] and B, machinability enhancing agents, hard phase materials and flow agents.

48. (Previously Presented) The process of claim 34, wherein the alloying element is selected from the group consisting of Mn, Cu, Ni, Cr, Mo, V, Co, W, Nb, Ti, Al, P, S and B.